

REMARKS

This application has been reviewed in light of the Office Action mailed on September 26, 2002. Claims 1-20 are pending in the application with Claims 1, 8 and 15 being in independent form. By the present amendment, Claims 1, 3-7, 11-17 and 19 have been amended and Claims 21-24 have been added. No new matter or issues are believed to be introduced by the amendments.

In the Office Action, Claims 1 and 6 were objected. Claims 1 and 6 have been amended in a manner which is believed to obviate the objection. Accordingly, withdrawal of the objection is respectfully requested.

I. Rejection of Claims 6 and 7 Under 35 U.S.C. §112

Claims 6 and 7 were rejected under 35 U.S.C. §112, second paragraph. Claims 6 and 7 were amended in a manner which is believed to obviate the rejection. Accordingly, withdrawal of the rejection is respectfully requested.

It is noted that the Examiner erroneously noted a rejection to Claim 2 under 35 U.S.C. §112, second paragraph, for lacking antecedent basis for the term "RF demodulated data." The Examiner meant to reject Claim 7, since only Claim 7 includes the term "RF demodulated data." Claim 7 has been amended in a manner which is believed to obviate the rejection.

II. Rejection of Claims 1, 8, 13 and 15-17 Under 35 U.S.C. §102(e)

Claims 1, 8, 13 and 15-17 were rejected under 35 U.S.C. §102(e) over U.S. Patent No. 6,405,049 issued to Herrod et al. on June 11, 2002 ("Herrod et al.") and having a common assignee as the present application. The rejection with respect to Claim 8 is respectfully traversed.

Herrod et al. is directed to portable data terminal device 10 and a cradle 12 for receiving the portable data terminal device 10. The cradle 12 is designed to upload or download information to and from the portable data device 10. The portable data terminal device 10 includes an "other input" 18, for example, a barcode scanner or other reader, video camera input, audio input or any other appropriate data input. A remote link 22 is provided for allowing communication between the terminal 10 and the cradle 12 by remote, wireless communication. Processors 24, 30 are also included in the terminal 10 and the cradle 12, respectively, for performing various functions, such as enabling communication between the terminal 10 and the cradle 12 via at least one interface. See column 5, line 33 to column 6, line 67.

Applicants have amended Claims 1 and 15 to better define Applicants' invention and in a manner which is believed to obviate the rejection. Specifically, Claim 1 has been amended to recite "A data collection module, comprising: a) a support having a predetermined form factor; b) a first auto ID reader supported by the support, said first auto ID reader operative for sensing encoded data on a first type of record carrier positioned near the first auto ID reader and for reading the encoded data; c) a second auto ID reader supported by the support, said second auto ID reader operative for sensing encoded data on a second type of record carrier configured to contact a portion of said second auto ID reader, said second auto ID reader further operative for reading the encoded data; and d) a radio frequency (RF) transceiver supported by the support, and operative for transmitting the data processed by said auto ID readers derived from the record carriers." (Emphasis added)

Similar language has been added to Claim 15 and similar language is recited by Claim 8. Specifically, Claim 8 and 15 recite at least a support having a predetermined form factor, and first and second auto ID readers.

As discussed above, Herrod et al. discloses a data terminal and cradle together having a single input scanner or other reader, which is referenced in the figures by reference numeral 18, for sensing and reading encoded data. Herrod et al. does not disclose or suggest at least a support having a predetermined form factor, and first and second auto ID readers supported by the support for sensing and reading encoded data, as recited by Applicants' Claims 1, 8 and 15.

Additionally, with respect to Claim 1, Herrod et al. does not disclose or suggest a first auto ID reader operative for sensing encoded data on a first type of record carrier positioned near the first auto ID reader and a second auto ID reader operative for sensing encoded data on a second type of record carrier configured to contact a portion of said second auto ID reader, as recited by Applicants' Claim 1. Further, with respect to Claim 1, Herrod et al. does not disclose or suggest a radio frequency (RF) transceiver supported by the support, and operative for transmitting the data processed by the auto ID readers derived from the record carriers, as recited by Applicants' Claim 1. As mentioned above, the data terminal and cradle disclosed by Herrod et al. together include a single input scanner or other reader for sensing and reading encoded data. Hence, the data terminal and cradle disclosed by Herrod et al. cannot transmit data processed by more than one reader as claimed by Applicants.

With respect to Claim 8, Herrod et al. does not disclose or suggest "a first and second auto ID reader supported by the support, and operative for sensing encoded data in

a first and a second data carrier of different types, respectively, and for reading the encoded data,” as recited by Applicants’ Claim 8. With respect to Claim 15, Herrod et al. does not disclose or suggest “sensing encoded data on a record carrier positioned near or in contact with one of the first and second readers and reading the encoded data,” as recited by Applicants Claim 15. Further, with respect to Claim 15, Herrod et al. does not disclose or suggest “transmitting the data processed by one of the first and second auto ID readers by the transceiver,” as recited by Applicants’ Claim 15. As mentioned above, the data terminal and cradle disclosed by Herrod et al. together include a single input reader or other scanner for sensing and reading encoded data. Hence, the data terminal and cradle disclosed by Herrod et al. cannot transmit data processed by more than one reader as claimed by Applicants.

Accordingly, withdrawal of the rejection under 35 U.S.C. §102(e) with respect to Claims 1, 8 and 15 and allowance thereof are respectfully requested.

Dependent Claims 13 and 16-17 are patentably distinct over Herrod et al., because Herrod et al. does not disclose or suggest more than one reader. Additionally, with respect to Claim 13, Herrod et al. does not disclose or suggest a predetermined form factor supporting an RF transceiver and at least one reader, as recited by Applicants’ Claim 13.

Further, Claims 13 and 16-17 depend from Claims 8 and 15 and therefore include the limitations of Claims 8 and 15. Therefore, for at least the same reasons given above for Claims 8 and 15, Claims 13 and 16-17 are believed to be allowable over the cited reference. Accordingly, withdrawal of the rejection under 35 U.S.C. §102(e) with respect to Claims 13 and 16-17 and allowance thereof are respectfully requested.

III. Rejection of Claims 2-3, 6 and 9-10 Under 35 U.S.C. §103(a)

Claims 2-3, 6 and 9-10 were rejected under 35 U.S.C. §103(a) over Herrod et al. in view of "admitted prior art" relating to the SE 1200 scan engine module.

Dependent Claims 3 and 10 are patentably distinct over Herrod et al. and the "admitted prior art," taken alone or in combination, because neither Herrod et al. nor the "admitted prior art" disclose or suggest more than one reader for a data collection module or terminal having a predetermined form factor. Additionally, with respect to Claim 6, neither Herrod et al. nor the "admitted prior art" disclose or suggest a predetermined form factor supporting an RF transceiver and at least one reader, as recited by Applicants' Claim 6.

Further, Claims 3, 6 and 10, as well as Claims 2 and 9, depend from Claims 1 and 8 and therefore include the limitations of Claims 1 and 8. Therefore, for at least the same reasons given above for Claims 1 and 8, Claims 2-3, 6 and 9-10 are believed to be allowable over the cited reference in view of the "admitted prior art." Accordingly, withdrawal of the rejection under 35 U.S.C. §103(a) with respect to Claims 2-3, 6 and 9-10 and allowance thereof are respectfully requested.

IV. Rejection of Claims 4, 11 and 18-19 Under 35 U.S.C. §103(a)

Claims 4, 11 and 18-19 were rejected under 35 U.S.C. §103(a) over Herrod et al. in view of U.S. Patent No. 5,310,999 issued to Claus et al. ("Claus et al.") on May 10, 1994.

Dependent Claim 19 is patentably distinct over Herrod et al. in view of Claus et al., because neither Herrod et al. nor Claus et al., taken alone or combination, disclose or suggest more than one reader supported by a support having a predetermined form factor. Further, Claim 19, as well as Claims 4, 11 and 18, depend from Claims 1, 8 and 15 and

therefore include the limitations of Claims 1, 8 and 15. Therefore, for at least the same reasons given above for Claims 1, 8 and 15, Claims 4, 11 and 18-19 are believed to be allowable over the cited references. Accordingly, withdrawal of the rejection under 35 U.S.C. §103(a) with respect to Claims 4, 11 and 18-19 and allowance thereof are respectfully requested.

V. Rejection of Claims 5, 7, 12 and 14 Under 35 U.S.C. §103(a)

Claims 5, 7, 12 and 14 were rejected under 35 U.S.C. §103(a) over Herrod et al. in view of U.S. Patent No. 6,123,259 issued to Ogasawara et al. on September 26, 2000.

Dependent Claims 7 and 14 are patentably distinct over Herrod et al. in view of Ogasawara et al., because neither Herrod et al. nor Ogasawara et al., taken alone or combination, disclose or suggest more than one reader for a data collection module or terminal having a predetermined form factor. Further, Claims 7 and 14, as well as Claims 5 and 12, depend from Claims 1 and 8 and therefore include the limitations of Claims 1 and 8. Therefore, for at least the same reasons given above for Claims 1 and 8, Claims 5, 7, 12 and 14 are believed to be allowable over the cited references. Accordingly, withdrawal of the rejection under 35 U.S.C. §103(a) with respect to Claims 5, 7, 12 and 14 and allowance thereof are respectfully requested.

VI. Rejection of Claim 20 Under 35 U.S.C. §103(a)

Claim 20 was rejected under 35 U.S.C. §103(a) over Herrod et al. in view of U.S. Patent No. 6,023,241 issued to Clapper on February 8, 2000.

Claim 20 depends from Claim 15 and therefore includes the limitations of Claim 15. Therefore, for at least the same reasons given above for Claim 15, Claim 20 is believed to be allowable over the cited references. Accordingly, withdrawal of the

rejection under 35 U.S.C. §103(a) with respect to Claim 20 and allowance thereof are respectfully requested.

VII. New Claims 21-24

New Claims 21-24 recite subject matter which is patentably distinct over the prior art references which Applicants are aware of. Specifically, independent Claim 21 recites "A data collection assembly comprising: a reader operative for sensing encoded data on a record carrier and for reading the encoded data; and an RF transceiver operative for transmitting the data processed by said reader derived from the record carrier, wherein the reader and the RF transceiver are dimensioned and configured for being supported within a predetermined form factor."

Applicants are not aware of any prior art references disclosing or suggesting the subject matter recited by Claim 21. In particular, Applicants are not aware of any prior art references disclosing or suggesting a data collection assembly comprising a reader operative for sensing encoded data on a record carrier and reading the encoded data, and an RF transceiver operative for transmitting data processed by the reader, where the reader and the RF transceiver are dimensioned and configured for being supported within a predetermined form factor, as recited by Applicants' Claim 21. Accordingly, allowance of Claim 21 is respectfully requested.

Claims 22-24 depend from Claim 21 and therefore include the limitations of Claim 21. Therefore, for at least the same reasons given above for Claim 21, Claims 22-24 are believed to be allowable. Accordingly, allowance of Claims 22-24 is respectfully requested.

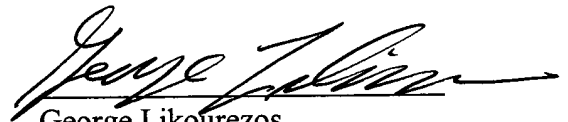
VIII. Conclusion

In view of the foregoing amendments and remarks, it is respectfully submitted that all claims presently pending in the application, namely, Claims 1-24, are believed to be in condition for allowance and patentably distinguishable over the art of record.

Attached hereto and identified as VERSION WITH MARKINGS TO SHOW CHANGES MADE is a copy of the amended claims detailing the amendments made thereto.

If the Examiner should have any questions concerning this communication or feels that an interview would be helpful, the Examiner is requested to call Applicants' undersigned attorney at the number indicated below.

Respectfully submitted,



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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Please amend Claims 1, 3-7, 11-17 and 19 as follows:

1. (Amended) A data collection module, comprising:

a) a support having a predetermined form factor;

b) [an] a first auto ID reader supported by the support, [and] said first auto ID reader operative for sensing encoded data on a first type of record carrier positioned near the first auto ID reader and for reading the encoded data; [and]

c) a second auto ID reader supported by the support, said second auto ID reader operative for sensing encoded data on a second type of record carrier configured to contact a portion of said second auto ID reader, said second auto ID reader further operative for reading the encoded data; and

[c)] d) a radio frequency (RF) [transmitter] transceiver supported by the support, and operative for transmitting the data processed by said auto ID readers derived from the record carriers[; and].

3. (Amended) The data collection module of claim 2, wherein the support includes a printed circuit board on which electrical circuit components for the RF [transmitter] transceiver are mounted.

4. (Amended) The data collection module of claim 1, wherein the RF [transmitter] transceiver includes a first antenna, a second antenna, and a selection circuit for coupling the [transmitter] transceiver.

5. (Amended) The data collection module of claim 1, wherein [the] at least one auto ID reader is an interchangeable element that includes one of a bar code symbol reader, a smart card reader, a digital sensor, and a fingerprint detector.

6. (Amended) The data collection module of claim 1, wherein the RF transceiver and at least one auto ID reader are supported within the predetermined form factor.

7. (Amended) The data collection module of claim 1, wherein the RF [receiver] transceiver and the auto ID readers generate digital signals corresponding to [the] RF demodulated data and the auto ID encoded data, respectively, and wherein the readers share a single IC for receiving and processing the digital signals.

11. (Amended) The data collection terminal of claim 8, wherein the RF transceiver includes a first antenna, a second antenna, and a circuit for modulating and demodulating [the] an RF signal.

12. (Amended) The data collection terminal of claim 8, wherein at least one auto ID reader includes a photodetector.

13. (Amended) The data collection terminal of claim 8, wherein the RF transceiver and at least one of the first and second auto ID readers are supported within the predetermined form factor.

14. (Amended) The data collection terminal of claim 8, wherein the RF transceiver and the auto ID readers generate digital signals corresponding to [the] an RF signal and the auto ID encoded data respectively, and wherein the readers share a common processing integrated circuit for receiving and processing the digital signals, and for outputting the processed signals through at least one common interface.

15. (Amended) A data collection method, comprising the steps of:

- a) supporting a radio frequency (RF) transceiver on a support having a predetermined form factor;
- b) supporting [an] a first and a second auto ID reader on said support;
- c) sensing encoded data on a record carrier positioned near or in contact with one of the first and second readers and reading the encoded data; and
- d) transmitting the data processed by one of the first and second auto ID readers by the transceiver.

16. (Amended) A method as defined in claim 15, wherein the first auto ID reader is [one of] a bar code reader[, or] and the second auto ID reader is a smart card reader.

17. (Amended) A method as defined in claim 15, further comprising processing the data from the RF transceiver and the data from the auto ID readers in a common signal processing circuit.

19. (Amended) A method as defined in claim [18] 17, wherein the data from the auto ID readers is transmitted from the signal processing circuit directly to the RF transceiver for wireless transmission to an external communications network.